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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/771,839

02/04/2004

Xinping He

384938068US

9751

25096

7590

11/15/2005

PERKINS COIE LLP

PATENT-SEA

P.O. BOX 1247

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EXAMINER

LE, QUE TAN

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/771,839

Applicant(s)

HE ET AL.

Examiner

Que T. Le

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/772,159. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention, claims 1-3, of the present application is a similar version of the claimed invention, claims 1-15, of the above identified copending application with similar intended scope. Note that the plurality of active pixels being recited in the copending application including a plurality of pinned photodiodes with a common output node and/or output circuit.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5, 7 and 8 of copending Application No. 10/625,411. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed invention, claims 1-13, of the present application is a similar version of the claimed invention, claims 1-3, 5, 7 and 8, of the above identified copending application with similar intended scope. The additional pixel formation further recited in the claimed invention of the present application is a well known aggregation to one of ordinary skill in the image forming art. The processing circuit and/or I/O circuit would have been inherently included in the input/output node formation claimed by the claimed invention of the copending application with similar intended scope.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung et al 6,218,691.

Chung et al disclose a CMOS image sensor system comprising: a plurality of unit pixels, wherein each unit pixel including a pinned photodiode (PPD), a transfer transistor (Tx) connected between the photodiode and an output node, a reset transistor (Rx) connected between a voltage reference (Vdd) and the output node, an output transistor (Dx) coupled to the output node, a selection transistor (Sx) connected between the output transistor and an output circuitry. The system includes a negative voltage generator (302).

With respect to claims 1, and 2, although Chung et al fail to disclose a second pinned photodiode and a second transfer transistor forming a second light sensing area for (each of) the pixel unit, forming additional light sensing area in an image pixel sensor in order to reduce the overall size and/or provide a compact design for the sensing system would have been obvious to one of ordinary skill in the imaging art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chung et al accordingly in order to provide a more compact design for the system.

With respect to claims 3, 5-9, and 12, although Chung et al disclose an image pixel array but lack a clear inclusion of a plurality of rows and columns, it would have

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been inherently included, however, if not, formation of rows and columns for an imaging system would have been obviously known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chung et al accordingly in order to provide a better two dimensional sensing surface for the system. The further citation of a third pinned photodiode with an associated transfer transistor and common output nodes would have been obvious for similar reasons set forth above.

With respect to claims 10 and 11, although Chung et al disclose an I/O circuit but lack a clear inclusion of a processing circuit, it would have been inherently included in order to process the sensed data, however, if not, including a processing circuit for processing the sensed data in an imaging system would have been obviously known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chung et al accordingly in order to provide a clear sensing result for the system.

With respect to claims 4 and 13, although Chung et al lack a clear inclusion of an option not being used of a row select transistor, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Chung et al by not activating the row select transistor, if so desired, without altering the basis performances of the system.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

I) Gee et al 6,320,617 disclose an array of CMOS active pixel sensor system using a plurality of pinned photodiodes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Que T. Le whose telephone number is (571) 272-2438.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps, can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to be 'Q. T. Le', with a vertical line extending upwards from the 'Q'.

Que T. Le

Primary Examiner